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GEOMETRID DESCRIPTIONS AND NOTES.

By LOUIS B. PROUT.

A. INDO-AUSTRALIAN.

Subfam. **OENOCHROMINAE**

1. **Ozola concreta** sp.n.

♂♀, 25–29 mm. Antennal ciliation of ♂ 1½–2. Hindtibia of ♂ very broadly dilated, on outerside concave, on innerside with groove containing strong brown hair-pencil (almost as in *indefensa* Warr., 1899). Head and body concolorous with wings.

Forewing, especially in the ♂, narrow, apex, especially in the ♀, somewhat produced, termen strongly oblique, but very little (sometimes not appreciably) concave between apex and R^1, hardly or very weakly bent about R^3; whitish, with very dense vinaceous-brown mottlings and blackish irroration, so that the ground-colour is scarcely anywhere shown except at apex and irregularly in parts of the narrow median area; cell-dot blackish, not very sharp, but generally a little enlarged by some grey diffusion; antemedian indefinite, excurved, band-like, rather distally placed, in cell only 1 mm. from cell-dot or little more; postmedian of a slightly brighter vinaceous than the rest of the mottling, duplicated distally by a second line or narrow shade, the two weakly but almost equally sinuous, thus much more nearly parallel than is usual in the *macariata* group, very slightly divaricating posteriorly; subterminal greyish, rather weak but generally complete, occasionally submacular; blackish interneural dots or dashes at termen.——*Hindwing* with termen not or scarcely produced at R^1; costal margin pale, more broadly at base; the rest mottled and irrorated as forewing; cell-dot moderately strong, crossed, or touched distally, by the almost straight median line, which is at least as bright as the postmedian of the forewing, more definitely formed than in *basisparsata* Walk. (1862) but not quite so strong as in *macariata* Walk. (1862) and *indefensa* Warr.; postmedian more bent, but very indistinct or almost obsolete; subterminal generally well discernible.

Underside similar or with rather stronger contrasts, the forewing generally with proximal and distal areas more broadly dark-shaded, the apex remaining pale.

Langkawi I., 14–29 April 1928 (H. M. Pendlebury), 1 ♂, 3 ♀♀, the type in coll. Brit. Mus. Also 1 ♀ from Kedah Peak, 3,300 feet, 21 March 1928 (H. M. Pendlebury), in coll. F.M.S. Museums.

Rather variable in colour. Readily distinguishable from *macariata* by the less extreme shape and the more oblique, more circumscribed central area of forewing. The species which more resemble it in shape—*leptogonia* Hmpsn., 1902 (? = *minor* Moore, 1888), *exigua* Swinh., 1902, and *decolorata* Warr., 1897—have much less dilated ♂ hindtibia. Unfortunately, the only known ♂ has lost one forewing, but it has been made holotype for the sake of the structural character.

Subfam. **HEMITHEINAE.**

2. **Actenochroma pullicosta** sp.n.

♀, 44 mm. Face with a slight vertical furrow in middle, here blackish (partly descaled). Palpus with 1st and 2nd joints pale, above rather narrowly blackish, 3rd joint elongate (a little longer than 2nd).

Forewing with R^2 arising very near R^1; apparently of a paler green than in *muscicoloraria* Walk. (1862, N. India), but discoloured in relaxing; costal border for a breadth of about 1 mm. blackish fuscous from antemedian line to apex, interrupted by median, postmedian and subterminal pale spots, continuing extremely narrow to base along costal edge, and sending out a short projection basewards just behind SC; markings nearly as in *muscicoloraria*, but with the projection of the postmedian less strong and the terminal line blacker and less interrupted.——*Hindwing* with R^2 almost connate with R^1; concolorous with forewing, marked nearly as in *muscicoloraria*, but with a dot instead of the irregularly elongate cell-mark; terminal line as on forewing.

Underside closely as in the rather broad-banded examples of *muscicoloraria*.

Mindanao: Kolambugan, Lanao, plains, 20 June 1914, 1 ♀ in coll. Tring Mus.

3. **Anisozyga valescens** sp.n.

♀, 42 mm. Face green, narrowly white below. Palpus fully 2, with terminal joint not quite as long as 2nd; brownish white, above and on nearly the whole of the 3rd joint fuscous. Vertex mixed with light-brown and fuscous; occiput narrowly green. Body above: thorax green, abdomen mixed with light fleshy-brown and fuscous; beneath: brown whitish.

Forewing with costa gently arched, termen crenulate but not deeply, curved to become strongly oblique posteriorly; lettuce-green or pearl-green (a little faded); costa light pinkish cinnamon, with copious, in part confluent, dark irroration; antemedian line rather thick, especially at extremities, light vinaceous cinnamon with dark irroration, from costa at 4 mm. to hindmargin at nearly 5 mm., somewhat sinuous, dentate inward at M and SM^2; a large light pinkish cinnamon, slightly irrorated apical patch reaching R^3, mixed with lavender-grey at the part farthest from apex, 7 mm. long at costa, about 5 mm. posteriorly, edged by a thick dark line, which is very faintly excurved about R^1; a much smaller lavender-grey tornal patch behind M^2; a dark terminal line; fringe tinted with vinaceous.——*Hindwing* with termen more strongly crenulate, forming pronounced teeth at R^1 and R^3; green, with a lavender-grey line on abdominal margin not reaching base; no transverse line; apical patch more irrorated and with more extended violet suffusion than on forewing; tornal still smaller than on forewing; terminal line and fringe as on forewing.

Underside whitish green; the terminal blotches present, the fleshy parts very pale, the lavender-grey parts almost black.

Dutch New Guinea: Cyclops Mountains, August–September 1928 (Dr. E. Mayr), 1 ♀ in coll. Tring Mus.

Probably nearest to *decorata* Warr. ♀ (1906), but larger, terminal joint of palpus less elongate, abdomen without green patch at base, wings less bluish green, apical patches with dark instead of white edgings, that of forewing without green spots.

4. **Spaniocentra agathoides** sp.n.

♂, 29 mm. Face reddish. Palpus reddish above, white beneath. Vertex white, occiput narrowly red. Patagium and tegula green; thorax posteriorly and abdomen rosy, somewhat mixed with white and green; body beneath white. *Forewing* green (probably as in the allies, but somewhat faded); costal margin at base broadly rosy, then rather broadly white, underlined with reddish, in places with dark speckling; markings vinaceous lilac, sprinkled—especially at their edges—with olive scales; antemedian represented by two spots, one 3 mm. from base in anterior part of cell, confluent with costal border, the other—slightly more distal and oblique—from hindmargin to just in front of SM^2; cell-mark long, anteriorly thick, touching the costal border; a similar subcostal streak midway between cell-mark and apex; an irregular terminal band, nearly 2 mm. wide at apex and slightly more just behind R^3, midway between these points narrowed to well under 1 mm. (its proximal edge being curved), again similarly narrowed posteriorly, at tornus connected with a large irregular mark which projects forward from hindmargin in the direction of the postmedian costal mark, is convex proximally, subconcave distally, and ends, rather long and flat, in front of M^2.——*Hindwing* with small cell-spot and a slight abdominal-marginal streak (as in the allies), culminating in a postmedian spot; border analogous to that of forewing, the apical broad part reaching to R^1.

Underside paler, with the markings shadowy.

Mindanao: Kolambugan, Lanao, plains, 4 July 1914 (A. E. Wileman), type ♂ in coll. Tring Mus.

A larger ♀ from the same locality, 16 June 1914, with similar borders to the hindwing, and to the forewing anteriorly, may belong with this, but has the cell-dot minute, the transverse markings wanting, an extremely large purplish blotch at tornus of forewing, intermediate between those of *S. megaspilaria* Guen. ♀ and *Rhomborista semipurpurea* Warr. (1897), 4 spurs on the hindtibia and may rather belong to an unknown ♂ of the *undiferata* group; the ♂ type, on the other hand, superficially recalls a small *Agathia* more than any previously known *Spaniocentra*.

Eretmopus Turn. (1910).

This genus, well differentiated from *Prasinocyma* and *Thalassodes* by the hindleg (spurless in the ♂, 2-spurred in the ♀), has been too hastily assumed to embrace only a single species and has not hitherto been critically analysed. The material, particularly in the ♂ sex, is unfortunately very meagre, but there are at least three species, readily distinguishable in the ♂, as will be seen from the following key:

1. Hindtarsus of ♂ densely rough-scaled . . . *discissa* Walk.
   Hindtarsus of ♂ not densely rough-scaled . . .. ,,
2. Hindwing of ♂ beneath with coarse buff (or somewhat cinnamon) scaling proximally . . . *marinaria* Guen.
   Hindwing of ♂ without buff scaling proximally . sp.n. (No. 5 infra).

E. discissa (Walk., 1861), founded on a ♂ from "Hindostan" [Moulmein] from Archdeacon Clerk's collection, is only definitely known to me from Lower Burma. A second ♂ in the British Museum is only labelled "N. India" (L. James; the collection number, 43.10, furnishing no further detail). A third, in the Tring Museum, only "Arracan" [Arakan]. The white cell-dot of the hindwing is rather large and there are traces of a minute second one on DC^3. A possible race from Dutch New Guinea (Etna Bay, 1 ♂, 1 ♀; ? Oetakwa River, Snow Mtns., 1 ♀) has similar leg-structure but hindwing scarcely angled, with reduced cell-dot. *E. marinaria* (Guen., 1858), founded on a ♀ (= *penicillata* Walk., 1861, founded on a ♂), is best known from Borneo, the type locality of both these names, but may have a somewhat extended range. The Tring Museum has a poor ♂ from [Tana] Djampea I. (Everett) and an old ♂ labelled "Amboina" (a locality often suspect); also well authenticated ♀♀ from Buru (cf. *Treubia* vii, 434) and Little Kei which may belong with it.

5. **Eretmopus retensa** sp.n.

♂♀, 40–46 mm. Closely similar to *marinaria* Guen. Face perhaps rather brighter red. Hindtibia of ♂ slightly longer and broader. Hindwing with termen slightly less angled; beneath uniformly pale green, without a trace of the coarse buff scaling of *marinaria* ♂.

Mindanao: Kolambugan, Lanao, plains, 19 June 1914 (A. E. Wileman), type ♂ and a ♀ in coll. Tring Mus.; a second ♂ in coll. Brit. Mus. Luzon: near Manila (J. Whitehead), 1 ♀ in coll. Tring Mus. Presumably this will also be the "*Thalassodes marinaria* Guen." of Semper, *Schmett. Philipp.* ii, 641 (Luzon, Bohol, Cebu).

6. **Hemithea melalopha** sp.n.

♂, 28 mm. Face red or brown-red (mostly abraded). Palpus not quite 1½, the 3rd joint short but not minute; 2nd joint marked with red on outerside, beneath white; 3rd joint mixed with fuscous. Fillet narrowly white; crown green. Antennal joints slightly projecting, the paired fascicles of cilia just over 1. Thorax and abdomen above green, beneath whitish; first abdominal tergites partly vinaceous with some black irroration; an even intenser black crest than in *notospila* Prout (1917) and *quadripunctata* Warr. (1896).

Forewing moderately broad, costa arched at base and gently in its distal part, apex rather sharp, termen waved anteriorly, bowed, oblique; SC^1 well free, R^1 shortly stalked, M^1 connate; dull green (faded); lines whitish, edged in median area with darker green, formed much as in *subflavida* Warr. (1896) or the antemedian slightly less curved in front; terminal line slight, fuscescent; fringe whitish, probably weakly dark spotted (defective).——*Hindwing* shaped about as in *subflavida*; a faint cell-dot indicated; postmedian line, termen and fringe about as on forewing.

Underside paler green, without markings.

Luzon: Klondyke, Benguet, 800 feet, 17 March 1912 (A. E. Wileman), 1 ♂ in coll. Tring Mus.

Not quite so broad-winged as *quadripunctata* Warr. (Dutch Timor), termen of forewing not quite so ventricose, the dark vein-dots on the lines wanting. Much smaller than *notospila* Prout (Borneo), terminal joint of palpus not so short, terminal blotches beneath wanting.

7. **Ptochophyle porphyrochlamys** sp.n.

♂♀, 25–27 mm. Head, thorax and anterior part of abdomen above, proximal part of antennal shaft and the dark parts of palpus and foreleg purple; posterior part of abdomen ochreous mixed with purple (broken in type ♂); underside cream-colour, structure normal; ♀ with terminal joint of palpus slightly longer than in ♂, antenna laterally compressed, strongly lamellate, the scaled area rough near base.

Forewing with costa shouldered at base, then nearly straight, apex rather blunt, termen little curved, moderately oblique; yellow (almost apricot-yellow, but with slightly less orange admixture), with rather strong purplish irroration except in narrow, very ill-defined ante- and postmedian bands; a purple patch at base (apparently rosy almost entirely overlaid with a dark blue-purple), 2–3 mm. wide, its distal edge twice incurved, but only slightly; an extension of this colour along costal edge for some distance; very slight indications of a large greyish cell-spot; a purple dot in cellule 6 nearly 3 mm. from termen; two others (very ill-defined in the ♀, the anterior one also reduced in the ♂) scarcely 1 mm. from termen, near costa and at R^3 respectively; dark terminal dots or minute dashes at the veins.——*Hindwing* moderately long, termen only bluntly bent at R^3; concolorous with forewing; basal patch rather smaller; costal edge not purple; hindmargin with the purple a little increased and with a conspicuous comma-shaped postmedian spot; the outer dots indicated, except the sub-apical; termen as on forewing.

Underside cream-colour, the hindwing unmarked, the forewing heavily clouded in costal region (most broadly in proximal part) and with vaguer cloudings or suffusions in the middle of the wing.

Malay Peninsula: Kedah Peak, 3,300 feet, 10 March 1928, at light (H. M. Pendlebury), type ♂ in coll. Brit. Mus., presented by the Federated Malay States Museums; Kuala Kubu, Bukit Kutu, Selangor, 3,400 feet, August 1915, allotype ♀ in coll. F.M.S. Museums.

Subfam. **STERRHINAE.**

8. **Chrysocraspeda altegradia** sp.n.

♀, 30 mm. Similar to the ♀ form of *concentrica* Warr., 1899 (*regalis* Warr., 1899, erroneously described as "♂"). Antenna with similar extremely long pectinations. Both wings with termen straighter, that of forewing almost perfectly straight, that of hindwing only very feebly convex. Colour much less bright—very light cinnamon-drab or brownish drab, with only a tinge of vinaceous (in *concentrica* ♀ between russet-vinaceous and Etruscan red, with a purple tinge distally).——*Forewing* with cell-dot minute, dark; a slight, but very extended median dark shade, quite undefined proximally, its distal edge straightish, about 3 mm. from termen; a very narrow, considerably darker band close to termen, separated therefrom by a yellow line, much narrower than that of *concentrica*; fringe paler yellow than the terminal line.——*Hindwing* similar, but with the cell-dot white and less small, the median shade ending a trifle less near the termen.

Luzon: Klondyke, Benguet, 800 feet, 22 March 1912 (A. E. Wileman), 1 ♀ in coll. Tring Mus.

9. **Scopula inflexibilis** sp.n.

♂♀, 21–22 mm. Face black. Palpus above and on much of outerside black. Vertex pinkish buff or whitish. Antennal joints in ♂ projecting very little; ciliation about $1\frac{1}{2}$, in slender fascicles. Thorax and abdomen between pinkish buff and cartridge-buff, paler beneath; collar warmer buff. Legs mostly pale; forefemur and foretibia darkened on upper- and innerside; hindtibia in ♂ nearly twice as long as femur, rather strongly dilated, tarsus $\frac{2}{5}$ tibia or rather less, with the first joint $1\frac{1}{2}$ times as long as the second.

Forewing slightly broader than in most of the *nesciaria* Walk. (1861) group, termen smooth, sufficiently curved anteriorly to blunt the apex; cell $\frac{1}{2}$ (just appreciably longer than in most of the group); areole moderate, with SC^1 about from its apex, SC^5 rarely much beyond, but variable; ground-colour indefinite, pale pinkish buff, with some fine and sparse, irregularly disposed black irroration; markings browner (near pinkish buff); cell-spot in the ♀ rather diffuse, sometimes with some black scales in the centre, in the ♂ showing chiefly as a small black dot; antemedian line sinuous, rarely conspicuous; median moderate, excurved well beyond the cell-spot, slightly incurved at fold; postmedian lunulate-dentate, somewhat angled at R^1, not deeply incurved between this and R^3, the teeth commonly marked with minute black vein-dots; subterminal shades weak; termen with the usual black dots small; fringe almost unmarked. ——*Hindwing* with termen almost rounded, very faintly bent at R^3; cell-dot minute, black; markings of forewing continued, excepting the antemedian; median just proximal to cell-dot.

Underside pale, the posterior part of forewing and the whole of hindwing paler; hindwing faintly or scarcely marked, forewing with cell-dot, postmedian line and terminal dots more or less strong, the postmedian very little or scarcely inbent between the radials.

South Andamans: 1 July–2 August 1927 (Ferrar coll.), 3 ♀♀, including the allotype; Port Blair, North Bay, 27 February–12 March 1925 (Mujtaba coll.) 2 ♂♂, 2 ♀♀; Port Blair, 1,200 feet, 1925 (Shaffi coll.), holotype ♂. All submitted by the Agricultural Research Institute, Pusa, the types presented to the British Museum.

Apparently very near the species which I believe to be *attentata* Walk. (*vide Journ. Bomb. Nat. Hist. Soc.* xxxi, 138), but on an average smaller, the hindtibia not quite so short, the forewing shorter and broader and with the termen not so perfectly even, the colouring rather warmer, the irroration sharper but sparser and less evenly distributed, the postmedian less incurved at R^2, notably beneath.

10. **Scopula parodites** sp.n.

♂, 20 mm. Face blackish. Palpus blackish, pale beneath. Vertex pale, inclining to écru-drab. Collar brown. Antennal joints scarcely projecting, ciliation very little over 1. Body whitish, suffused—especially above—with light brown. Hindtibia about 3 mm. long, dilated, fringed with whitish in proximal part, pencils moderately developed, tarsus barely over $\frac{1}{2}$.

Forewing moderate, termen smooth, slightly curved in middle; whitish, suffused with light brown about as in rather well-coloured forms in the *minorata* Bdv. (1833) group; a few scattered black scales; cell-dot small but sharp; lines faint, brownish, the antemedian and the median, which is well outside the cell-dot, sinuous, the postmedian marked, at least from R^1 hindward, with black vein-dots, oblique outward to R^1, deeply inbent between this and R^3 and well incurved at fold; subterminal shades obsolescent; terminal dots sharp; fringe unspotted. ——*Hindwing* with termen not appreciably bent at R^3; antemedian wanting, median just proximal to cell-dot; otherwise nearly as forewing.

Underside whiter, especially the hindwing and distal and posterior parts of forewing; cell-dots present; median shade on forewing and terminal dots on both wings indicated; a greyish postmedian (least indistinct on forewing), marked with darker vein-dots.

Selangor: Kuala Lumpur, 28 October 1927, at light (H. M. Pendlebury), type in coll. Brit. Mus., presented by the F.M.S. Museums. A ♀ from Mergui (Doherty) slightly paler, in coll. Joicey.

Very near *consimilata* Warr. (1896, as *Ptychopoda*!), somewhat browner, median shade more slender, fringe unspotted; but in that species the ♂ hindtarsus is $\frac{2}{5}$ and the antenna is more dentate-fasciculate.

11. **Scopula desita luzonica** subsp.n.

♂♀, 16–22 mm. On an average markedly smaller than *d. desita* Walk. (1860), both wings slightly less elongate costally. The pale ground-colour tinged with brown rather than with violet-grey; no differentiated brown shade outside the postmedian; apical dash of forewing obsolete, median shade rather less prolonged in that direction, its anterior part commonly less obsolescent than that of *d. desita* (in both here highly oblique inward); costal dot of postmedian on an average stronger above and beneath than that of *d. desita.*

Luzon: Klondyke, Benguet, 800 feet, March–May 1912 (A. E. Wileman), a good series; Montalban, Rizal, April 1914 (A. E. Wileman), a few; type ♂ from Klondyke in coll. Tring Mus.

Possibly a distinct species, but forms of *desita* from the Sunda Islands, Tenimber, etc., are somewhat intermediate, while conserving the characteristic apical dash.

12. **Scopula succrassula** sp.n.

♂♀, 22–27 mm. Slightly shorter-winged and more robust in build, especially in the ♀, than the very extensive Indo-Malayan group with which it shares its coloration and simple scheme of markings (*nesciaria* group), being formed about as in *destituta* Walk. (1866), *densicornis* Warr. (1897) or perhaps *amala* Meyr. (1886). Face black. Palpus black, beneath whitish. Antenna of ♂ with paired processes, from which arise dense fascicles of rather long cilia (nearly twice diameter of shaft). Vertex white. Collar light brown. Thorax and abdomen whitish. Hindtibia of ♂ long, fringed above and with rather strong hair-pencil; hindtarsus about $\frac{1}{2}$.

Forewing fairly broad, termen less oblique in ♀ than in ♂; whitish buff, with fine and sparse blackish irroration; cell-dot black, small; lines a little darker and browner than ground-colour, not slender; antemedian weak, somewhat sinuous; median well beyond cell-dot, gently sinuous, the outward curve between costa and M^1, the inward (slightly deeper) between this and SM^2, on which is a weak tooth outward; postmedian about 3 mm. from termen, somewhat dentate, slightly incurved between the radials and at fold, its irregularities often more or less straightened out by the thickening; subterminal weakly sinuous.

between fairly thick shades which are almost or quite as strong as the true lines ; terminal dots sharp ; fringe unspotted, slightly paler distally.——*Hindwing* with termen rounded, not noticeably bent at R^3 ; no antemedian ; median curved round (close proximal to) the cell-dot ; the rest as on forewing.

Underside with the cell-dots present, though generally reduced ; forewing with weak reproduction of the lines beyond ; hindwing a little whiter, with the postmedian discernible, though faint.

Mindanao : Kolambugan, Lanao, plains, May–June 1914 (A. E. Wileman) ; 2 ♂♂, 9 ♀♀ ; the ♂ type (coll. Tring Mus.) and paratype (coll. Brit. Mus.) are unfortunately worn, but quite recognizable. Two better ♂♂ from Palawan, January 1894 (Everett), of rather a warmer tone and with rather larger cell-dots (the differences racial ?) are in the Tring Museum.

This may well be the "*Craspedia densicornis* Warr." of Semper (*Schmett. Philipp.* ii, 630), in which case Luzon, Bohol and Cebu must be added to its range ; it is very similar to that species except in the less extremely long antennal ciliation, and much less abbreviated hindtarsus of the ♂.

13. **Sterrha homalorrhoë** sp.n.

♂, 21 mm. Face blackish fuscous. Palpus pale beneath. Vertex and base of antennal shaft whitish ; antennal joints somewhat projecting, ciliation over 1 in paired fascicles. Collar brown. Thorax and abdomen concolorous with wings. Hindleg whitish ; a long ochreous-tinged pencil from femoro-tibial joint, the tibia expanding into a broad compact flap or sheath, from the end of which projects a tuft of long scales as far as the end of the very short, aborted tarsus (without dissection it is impossible to decide whether a concealed first tarsal joint may participate in this expansion).

Forewing moderate, termen straightish, almost imperceptibly sinuous, rather strongly oblique ; areole moderately long, but with SC^1 stalked well beyond it ; very pale glossy grey, with a tinge of cinereous or plumbeous (with the lens resolving itself into a mixture of grey and whitish scales) ; costal edge and a subcostal line ivory-yellow or slightly buff ; three pale lines of a similar colour, the antemedian very slender, the other two stronger, with the lens appearing as chains of vein-spots ; all much straighter than in the similar species (*insuavis* Butl., *remissa* Wilem., etc.), the third, which is about 1 mm. from the termen, almost straight in the paratype, faintly bisinuate inward in the type ; very small pale interneural marks at termen, scarcely visible without the lens ; fringe faintly pale-spotted at vein-ends.——*Hindwing* with termen rounded, very faintly sinuous ; no sexual specializations ; SC^2–R^1 stalked to nearly half their length ; as forewing without first line.

Underside : forewing rather paler, faintly marked ; hindwing almost white.

Malay Peninsula : Kedah Peak, 3,300 feet, at light (H. M. Pendlebury), 27 March 1928 (type), and 26 March 1928 (paratype), the type in coll. Brit. Mus.

14. **Sterrha (Strophoptila) opsitelea** sp.n.

♂, 19–20 mm. Face blackish. Palpus more brown, above mixed with dull purple. Antennal ciliation even, fully 1. Vertex and patagium drab to buffy brown, collar rather browner. Wing-tegula purplish. Thorax and abdomen above glossed with dull purple. Hindleg buff, very heavily tufted, the tufts largely concealing the weak, curved tarsus.

Forewing of moderate breadth, termen curved, strongly oblique, tornus not strong; areole moderate or rather small, SC^1 variable, either from its apex or more or less long-stalked; brownish drab or vinaceous-drab, coarsely scaled, slightly browner distally; three buff costal streaks, respectively at nearly $\frac{1}{3}$, less than $\frac{2}{3}$, and $\frac{7}{9}$; antemedian angled outward at C, tapering to M; median slightly oblique inward to base of R^2, giving birth to an irregular line, which is extremely fine and strongly excurved between R^2 and M^2, behind M^2 broadened and somewhat oblique outward to hindmargin near tornus; postmedian short, giving birth to a slender and incomplete line, which is angled outward on R^1, obsolete between R^3 and the medians, excessively fine and highly sinuous to tornus; terminal line very faint and interrupted; fringe very weakly mottled, with a very fine pale line at base.——*Hindwing* with costa rather short, termen rather long and oblique outward to M^2, abdominal region folded, with fringe of hair; concolorous with forewing, more mixed with buff in abdominal region between the median and the postmedian, which show in the posterior part of the wing as incomplete, sinuous lines, the median the thicker.

Underside similar, or very little paler.

♀ paler (especially in the median area) and more avellaneous—or vinaceous—tinged; variable, similarly marked to the ♂ or more banded, so as to leave the costal streaks scarcely differentiable; hindwing with termen convex, but not perfectly regularly, broadly pale, especially beneath, where a rather definite border of the ground-colour is left distally to postmedian line.

Malay Peninsula: Kedah Peak, 3,300 feet, 12 March 1928 (type ♂), 25 March 1928 (paratype ♂), 23, 27 and 29 March 1928 (3 ♀♀), all collected by H. M. Pendlebury. Type in coll. Brit. Mus.

15. **Sterrha celativestis** sp.n.

♂, 18 mm. Closely related to *marginata* Swinh. (*Tr. Ent. Soc. Lond.* 1894, p. 182), agreeing in shape and venation—areole wanting, SC^1, ^{5}, ^{2}, ^{3}, ^{4} on a long stalk. Hindfemur more swollen, purple-reddish. Upperside of wings indistinguishable from well-marked *marginata* with a pronounced costal spot; hindwing beneath with an extended fringe of long hair from just behind M and the base of M^2, directed hindward and outward, so as to cover most of the hind area of the wing except tornus; forewing beneath as far as the postmedian strongly suffused with reddish grey.

Selangor: Bukit Kutu, 3,500 feet, at light, 20 April 1926 (H. M. Pendlebury), 1 ♂ in coll. Brit. Mus.

SUBFAM. **LARENTIINAE.**

16. **Ecliptopera zophera** sp.n.

♂♀, 43–48 mm. Like *obscura* Moore (1867) = *monana* Swinh. (1893) except as follows:

Forewing with subbasal line gently curved, not or scarcely indented on M; dark spots between this and antemedian scarcely ever confluent; antemedian on an average less deeply outbent behind middle; postmedian without indentations in the anterior half (in *obscurata* indented on nearly all the veins, including particularly SC^5, the posterior white dashes which project inward along the veins extremely slender, virtually confined to the medians; terminal dark patch between apex and R³ generally less broad (but variable in both species). ——*Hindwing* with termen rather less convex between R¹ and tornus; darker, excepting the broad whitish costal area; less suffused with ochre, which colour, indeed, is hardly noticeable except in a small terminal patch between C and R¹; the pale lines more distally placed, much less dentate, the postmedian slender, almost straight, the subterminal weakly and irregularly crenulate, less bent between R³ and M¹ than in *obscurata*.

Underside more strongly marked than in *obscurata*, with corresponding differences in the lines.

Sikkim, British Bhotan and the Khasis, the type from Cherrapunji, October 1893, in coll. Tring Mus.

Swinhoe, in erecting his *monana*, renamed Moore's species; probably he had standing in his collection as *obscurata* the present species, which is much the commoner of the two in the Khasis, and made the fatally easy mistake of separating out a new one without consulting the original. On the other hand, a part of the blame belongs to Moore, as his collection shows that he mixed the two and his description is perhaps in part designed to cover both, though "the points" (of the postmedian) "extending inwardly along the veins" should have been decisive as to the type. The crude figure (*Proc. Zool. Soc. Lond.* 1867, t. xxxiii, f. 7) might be taken for either, though the postmedian of the forewing again favours *obscurata* vera, as confirmed by the holotype. Hampson (*Faun. Ind.*, *Moths*, iii, 360) sank *monana* to *obscurata*; not, however, because he discovered Swinhoe to have named the wrong one of two species, but because his uncritical eye failed to discriminate between the two.

17. **Ecliptopera ctenoplia** sp.n.

♂♀, 41–52 mm. Similar to *zophera* Prout (*supra*). Smaller. Antenna of ♂ bipectinate, the branches short (less than 2), thickened distally, well ciliated. Coloration still more uniform, the forewing almost, the hindwing altogether, without ochreous shadings.——*Forewing* with subbasal line straight, at least as far from base at hindmargin as at costa; antemedian with its curve still less deep and rather more anteriorly placed than in *zophera*; postmedian crenulate much as in *obscurata* Moore; subterminal projecting a rather strong tooth into the terminal patch on R¹.——*Hindwing* better rounded than in *zophera* (more as in *obscurata*), pretty uniformly fuscous, except for a *narrow* paler area at costa and a very indistinct pale postmedian line. Underside more like that of a dark *umbrosaria* Motsch. (1864), entirely lacking the sharp contrasts of *zophera* and *obscurata*, the broad pale anterior postmedian band of the forewing, etc.; cell-dot of hindwing rather large, slightly elongate.

Java: Tjibodas, 25–28 March 1904 (K. Kraepelin), type ♂ in Zool. Mus. Hamburg; Palaboean, a ♀ in Mus. Tring, misidentified by Warren as *muscicolor* Moore (1888), by me as *furvoides* Th. Mieg (1915).

The first known *Ecliptopera* with pectinate antenna, thus bearing the same relation to the rest of the genus as "*Paralygris*" *contorta* Warr. (1900) bears to *Eustroma*.

18. **Photoscotosia miniosata cupha** subsp.n.

♂♀. *Forewing* more reddish, much less variegated, less dark-mixed than in *m. miniosata* Walk. (1862), the blackish median line sharply defined proximally, as well as distally, the buff apical spot beneath rarely very sharply defined.——*Hindwing* of ♂ with the white area rather more extended.

Luzon, 5,000–7,000 feet, a good series, mostly collected at Haight's Place, Pauai, Benguet, by the late Mr. A. E. Wileman. Type ♂ in coll. Tring Mus.

19. **Electrophaes westi** sp.n.

♂♀, 29–33 mm. Face rough-scaled. Palpus long (2¼ to 2½). Antenna of ♂ laterally compressed. Posterior thoracic crest almost obsolete. Abdomen in place of the hair-pencils with a strong latero-ventral scaled plate terminating in coarser scales near the anal end of the abdomen (perhaps concealing pencils of which no trace can be found without dissection). Head and body concolorous with wings, abdomen above dark-mixed and with narrow white bands at ends of segments.

Forewing shaped nearly as in *fulgidaria* Leech (1897), tornus slightly more rounded ; areole undivided, R^1 just separate ; the white and yellow part coloured as in *fulgidaria*, the dark parts rather less dark, brightening in places to antique brown ; subbasal band angled outward in cell, incurved between the angle and SM^2 ; median band little sinuous proximally, but with a tooth proximad just behind M, more as in *fulgidaria* distally but with a much less profound indentation at R^2 ; distal markings much as in *fulgidaria*, the white marks at termen larger.——*Hindwing* with DC not very oblique, SC^2 connate to short-stalked, R^2 central ; much more yellowish than in *fulgidaria*.

Underside showing corresponding distinctions in coloration and in form of markings.

Luzon, Benguet (A. E. Wileman) : Haight's Place, Pauai, 7,000 feet, November–December 1912, type ♂ and 2 ♀♀ in Mus. Tring, 2 ♀♀ in Mus. Brit. ; Baguio, 1 ♀ in each of these collections ; Sapiangao, a small ♀ in Mus. Brit.

Mr. R. J. West, to whom I dedicate this species, knew only the ♀♀, overlooked the venation and took it for a subspecies of *fulgidaria*. The structural deviations noted will perhaps necessitate generic separation.

20. **Dysstroma rufibrunnea** (Warr.).

Polyphasia truncata rufibrunnea Warr., *Nov. Zool.* vii, 181 (1900) (" Parana, Entre Rios " [N. Luzon]).

Warren founded this species on females labelled as from Parana, Entre Rios. So long ago as 1908, in a paper read before the City of London Entomological and Natural History Society on March 17 of that year (see *Trans. City Lond. Ent. Soc.* xviii, 51, 1909), I pointed out that the assumed locality must be due to some error in labelling, the genus being Holarctic, with a small contingent in the Himalayas, Formosa, Sumatra, Java and—as I have recently learned—the Philippines. But I was, naturally, unable to assign the correct locality and tentatively left it as an unmatched form of *citrata* Linn.

In 1912, however, the late Mr. A. E. Wileman obtained a fair series at Haight's Place, Pauai, Benguet, Luzon, at 7,000 feet altitude, June, July, November and December. For the positive citation of N. Luzon as type locality, the following corroborative evidence is sufficient. (1) The Tring Museum at about the same date received material from N. Luzon, 5,000–6,000 feet (Whitehead), but from no other locality in the Philippines. (2) I have actually found in the collection one male with the last-mentioned data, somewhat worn and rather whiter than even the ♀ paratype, determined by Warren as "*calamistrata* Moore." (3) Another Geometrid with identical label ("Parana, Entre Rios"), somewhat rashly described by me (*Nov. Zool.* xxiv. 377) from a single ♀ as an aberrant *Racheospila* and named *R. variifrons*, was also taken by Mr. Wileman at Haight's Place, whence it has been renamed *Comostola acteana* West (*Nov. Zool.* xxxv, 257), although as it has not the discocellulars of *Comostola* it will have to stand as *Chloëres variifrons* (Prout) or—if that genus is ultimately merged in *Comostolopsis*—as *Comostolopsis variifrons*.

D. rufibrunnea does not seem to vary much in the proximal and distal areas of the forewing, but shows similar colour-changes in the median area as a number of its congeners ; most commonly this is white, though with the inner lines of the postmedian group frequently rather strong (as in some forms of *citrata*, etc.), occasionally it is somewhat suffused with brownish, as in Warren's holotype (not by any means concolorous with the proximal and distal bands, as his description suggests, but much whiter), occasionally with blackish. In most specimens, a rather characteristic effect is produced by the subtriangular suffusion in the pale median area in front of M, which appears as an almost concolorous appendage of the proximal band ; in *citrata* and other species which also at times develop it, this suffusion is grey rather than brown. Hindwing above glossy and not particularly dark—perhaps about as in *korbi* Heydem. (1929) or weakly-marked *citrata*. Central projection of postmedian strong, but not very extreme ; the white line which bounds that of the forewing is single, slender, with a small tooth inward in front of R^1 and immediately succeeded by the well-developed hazel outer band.

I have submitted a ♂ to my friend Dr. F. Heydemann, who has recently made such a thorough-going study of the genitalia of the genus. He considers "on first inspection" that *rufibrunnea* comes near *flavifusa* Warr. (1896), forming perhaps a link to *japonica* Heydem. (1929). "The spined area of the vesica is, indeed, likewise narrow and the spines quite short, slender and very acute, but it is 2½ times as long as in *flavifusa* and more densely covered with spines, moreover set in a curve, not straight, as in *japonica*" (*in litt.*. 12 November, 1930).

21. **Dysstroma heydemanni** sp.n.

♂♀, 32–40 mm. General characters and coloration as in the rest of the group. Palpus quite moderate (about 1½). Thorax posteriorly and anterior part of abdomen with whitish dorsal spots generally rather well developed, sometimes in part confluent, suggesting a longitudinal line.

Forewing with proximal area brown, crossed by a dark, distally two-pronged subbasal band which is not sharply defined proximally, but generally rather well-defined distally ; the two white hind-marginal spots (subbasal and antemedian) well developed, conspicuous ; median area broad anteriorly, much narrower (often only about half as broad) posteriorly, its proximal edge (antemedian line) oblique outward (about as in not very extreme *corussaria* Oberth. 1880), indented at folds ; the white enclosed band rarely at all clean, in the type heavily irrorated and lined, in many examples becoming blackish, in the white-banded examples fairly well lined and with a large subtriangular blackish (not brown, as in *rufibrunnea*) proximal suffusion in front of M ; distal lobe of median area blunt, the slender, weakly dentate white postmedian line often running almost direct from costa to R^3, at best only weakly incurved, posteriorly more oblique than termen and moderately incurved at fold, more or less indented at veins and fold ; cell-mark generally rather small ; distal brown band often with some buff alleviation between costa and R^1 ; subterminal line irregular, interrupted ; *one* white dot or spot at termen, in front of R^3 (not one in front and one behind, as in *calamistrata* Moore, 1867).——*Hindwing* darker brown-grey, about as *dentifera* Warr. (1896).

Underside more or less dusky, the forewing much as in *tenebricosa* Heydem. (1929) but with the white costal band less broad (broader than in *rufibrunnea*), the hindwing more as in a rather dark *dentifera*.

Luzon : Haight's Place, Pauai, Benguet, 7,000 feet, June, July, November and December 1912 (A. E. Wileman), a long series, the type in coll. Tring Mus.

Generally larger than *rufibrunnea*, the median band differently shaped, the white hindmarginal spots more pronounced ; only a few of the darkest-banded forms at all difficult to determine. Genitalia quite different. "Relatively to the total size of the aedoeagus, it has the largest spined area in the genus, filling the entire penis-funnel. A combination of *subapicaria* and *dentifera* or *corussaria*. Seven huge spines are placed in a curved row over against some 18 smaller ones" (Heydemann *in litt.*, 12 November 1930).

22. **Parazoma hypobasis** sp.n.

♀, 27 mm. Face with small pointed cone. Palpus well over 2, with suberect scaling above, 3rd joint moderate. Head and body whitish, mixed with brown and irrorated with fuscous, the abdomen rather robust, above with the brown shade somewhat prevalent.

Forewing slightly more elongate than in *ferax* Prout (1926), costa with proximal third very markedly shouldered, forming almost a hump ; white, closely irrorated and banded with fuscous, and with brown suffusion on either side of the median fascia ; a fine dark line, little sinuous, near base, separated from the subbasal band by a less fine white line ; subbasal band (of two or three confluent lines) straightish proximally, more excurved distally ; median band about 3 mm. wide, bordered by the usual fine white, dark-edged lines, the distal one duplicated at the costa ; proximal edge of band sinuous and slightly curved, indented at SC ; distal edge minutely concave between C and SC and more markedly between the radials, very weakly projecting between R^3 and M^2 ; subterminal line white, zigzag, almost lost between radial fold and M^1 in a moderately large midterminal white spot ; a less zigzag presubterminal white line also suggested from costa to M^1, where it touches the proximal edge of the white spot ; terminal line lunulate, scarcely interrupted ; fringe weakly chequered, with a dark central line and with a clear white spot at R^3–M^1.——*Hindwing* longer than in true *Parazoma* ; DC not biangulate, R^2 central ; grey, suffused with brown ; a small fuscous cell-dot, succeeded by a rather indefinite postmedian line and this by a still more indefinite double pale (brownish) line ; terminal line nearly as on forewing, but rather weaker.

Both wings beneath sharply marked ; forewing with basal area whitish in posterior half, straight subbasal and strongly curved antemedian line blackish, postmedian still blacker, white-edged in anterior half, area between this and the first subterminal brown, traversed by indistinctly darker lines, terminal area largely dark, with reduced but sharply white spot between R^3 and M^1; hindwing with similar scheme from antemedian to subterminal, but with a strong black cell-dash, terminal area less darkened than on forewing and without the white spot.

Upper Burma: Htawgaw, 6,000 feet (Capt. A. E. Swann), 1 ♀ in coll. L. B. Prout, kindly presented by the discoverer.

A most interesting addition to the wonderful collection which has already been worked out in *Journ. Bomb. Nat. Hist. Soc.* xxxi (1926–27). The reference to *Parazoma* is provisional, the shape, presence of face-cone and extreme weakness of abdominal crests being somewhat dissonant.

23. **Episteira vacuefacta** sp.n.

♂, 29 mm. Palpus 3½, at base white, then olivaceous with some dark and some whitish irroration; terminal joint over half as long as diameter of eye. Antenna rather slender, about half as long as forewing. Thorax and abdomen concolorous with wings, the abdomen about 9 mm. long; the pouch ("keel") beneath its base a little less large than in the genotype (*colligata* Warr., 1899).

Wings narrow, slightly more so than in the genotype.——*Forewing* whitish, with the wavy green lines (faded to a yellower tone than olive-ochre) regularly spaced, those between the subbasal and antemedian (in sharp contrast to those of *colligata*) entirely without black admixture; subbasal extremely finely and interruptedly marked with black, acutely angled outward subcostally; antemedian single, irregularly thickened, sinuous, in cell connected by longitudinal black mark with postmedian group, from fold to SM^2 markedly oblique outward, at hindmargin forming a black spot; cell-mark elongate, close to antemedian; postmedian a group of three, indented at SC^5, then thickened, in part confluent, between R^3 and M^1 obsolete, the outermost at hindmargin thickened and very oblique outward; the second line beyond, and to a less extent the third, darkened on subcostals; the usual pair of subconfluent twin spots between the radials; a moderately uniform dark line or shade close to termen; terminal vein-dots rather large; fringe pale, weakly spotted.——*Hindwing* very pale grey; the very short cell entirely occupied by the specialized subvitreous area, the basal lobe behind it small; SC^2 arising closer to R^1 than in the genotype.

Underside pale greyish, unmarked.

Malay Peninsula: Kedah Peak, 3,300 feet, 25 March 1928, at light (H. M. Pendlebury), type in coll. Brit. Mus., presented by the Federated Malay States Museums.

The Tring Museum has 2 ♂♂ from Dradjad, G. Kendang, Preanger R., W. Java, which show the species to be variable in the strength of the central and subterminal markings, but without more material it is impossible to say what differences will prove individual and what racial.

24. **Sauris improspera** sp.n.

♂, 26–29 mm. Head pale green. Palpus over 2½, third joint half as long as second; pale green, at base white. Antenna laterally compressed, twice sinuate above, but not deeply; scaled surface black-mixed. Thorax above green; beneath, with abdomen, paler and greyer. Hindtibia long and slender, without spurs; tarsus nearly ¾ tibia.

Forewing rather narrow, apex blunt, termen entire, almost imperceptibly waved, strongly oblique, curved except close to tornus ; areole ample, SC^1 from before its apex, SC^5 connate or short-stalked with SC^{2-4}, SM^2 sinuous ; green, a little greener than deep olive-buff (probably brighter when bred), with the usual deeper green lines in large part mixed with purple-brown, more or less interrupted by SC and M and behind SM^2 ; a very slight and indistinct line close to base ; subbasal band-like, rather strongly sinuous ; a similar but less brown-marked band between this and median area ; median area formed of six lines, the first and last slender and little marked with brown, the others thicker, mainly brown, in places confluent, especially in middle of wing, so that the cell-dot is often hardly differentiable ; antemedians dentate inward at both folds ; postmedians somewhat bidentate outward at R^1 and M^1, incurved between the last tooth and hindmargin, becoming strongly oblique outward at end ; green central spots generally conspicuous at both ends of this median area ; proximal subterminal line double anteriorly, fused posteriorly, dark-marked at the radials and the posterior part and (more weakly) at and near costa ; distal subterminal single, finer, dark-marked at the same places ; terminal line thick, grey, with oblong dark marks at the veins ; fringe dusky in proximal half, with whitish spots opposite the veins.——*Hindwing* small, apex blunt, termen feebly sinuous ; cell extremely short, C anastomosing with SC^2 just beyond it and continuing anastomosed for a good distance, then rapidly diverging, R^1 from apex of cell, a second radial ($R^2 + R^3$?) from its hind angle, sinuous to the false tornus, nearly the whole area behind it atrophied, at base forming a small folded lobe ; nearly uniform grey, inclining to drab.

Underside darker grey.

♀ similar, on an average rather larger, hindwing with cell much less short, C anastomosing to near its end, SC^2–R^1 fairly long-stalked, medians coincident.

India : Khasis, Nagas and E. Pegu, in Mus. Tring, the type from the Khasis, April 1897. Also known from Ceylon and the Malay Peninsula, possibly in separable races.

The unfortunate combination of circumstances that Guenée (*Spec. Gén. Lép.* x, 361) overlooked M^2 (his vein 4) in his type of *Sauris hirudinata*, and that the present species does occur on Ceylon (though very rarely) has led to a misidentification of his species and a misnaming of the group to which the present species belongs (see *Ins. Samoa*, iii (3) 148). His type proves to be a ♀ of the Ceylon race of his *Remodes abortivata*, described a few pages later, and the two will stand as *Sauris hirudinata hirudinata* (Ceylon) and *S. h. abortivata* (Borneo, etc.). The present species has thus been left without a name.

25. **Acolutha bicristipennis** sp.n.

♀, 17–18 mm. Closely similar to *pictaria* Moore (1888). Head paler ; face whitish, except for a light brown band across the middle.——*Forewing* with SC^1 arising about opposite to SC^5, in one example well before it (in *pictaria* generally well beyond it, but too variable to afford an altogether safe criterion) ; anterior part white, with only a weak irroration of light brown and with the ill-defined bands here light ochre rather than brown ; the bright ochreous patch at anterior part of termen and fringe clearer and more extended than in *pictaria* ; the posterior yellow bands broader and more confluent.——*Hindwing* with raised black cell-dot, recalling that of forewing though smaller (very distinct from the minute dot of *pictaria*); yellow bands broadened.——Underside with the dark costal and apical area of forewing appreciably less extreme than in *pictaria*.

S. Andamans, 1,200 feet, at light, May and June 1927 (Ferrar coll.), 3 ♀♀; type in coll. Brit. Mus., paratypes in coll. Agric. Res. Inst. Pusa and coll. L. B. Prout.

Subfam. **Geometrinae.**

26. **Ctenognophos imaginata** sp.n.

"*Gnophus lichenea* Oberth." Hmpsn., *Faun. Ind. Moths*, iii, 253 (1895) (err. det.).

♂♀, 46–56 mm. Close to *lichenea* Oberth. (1886), possibly a race, as no structural difference has yet been found.—*Forewing* with the termen rather more strongly crenulate, more strongly curved, so that the angle at the apex is a little more obtuse; base generally paler; lines more strongly expressed, the postmedian more deeply lunulate between the veins, in particular with a large lunule at fold, altogether recalling the *muscosaria* (Walk.) group of *Gnophos*; a paler band between the postmedian and subterminal, entirely without the characteristic reddish posterior flush of *lichenea*; terminal dots larger.——*Hindwing* also with termen more strongly crenulate and with corresponding distinctions in base and postmedian.——*Forewing* beneath with larger terminal dots than in *lichenea*.

Sikkim: Tonglo, 10,000 feet, July 1886 (H. J. Elwes), 4 ♂♂, 4 ♀♀, including the type ♂; a few without exact locality (O. Müller). British Bhotan: Buxa, 7 ♂♂, 1 ♀. Tibet: Yatung, 12,000–14,000 feet (D. McDonald). All in coll. Tring Mus.

Hampson cannot have examined the venation of this species, as he groups it with *colaria* Guen. and gives both the venation of the latter. In *imaginata*, as well as in *lichenea* Oberth. and *punctivenaria* Leech (1897), SC^1 is free and SC^2 arises from the stalk of SC^{3-5}; about the last six joints of the ♂ antenna are non-pectinate. In the nearly allied *theuropides* Oberth. (1891) and *mandarinaria* Leech (1897) SC^2 arises from the cell and only a still shorter portion of the apex of the antenna is non-pectinate.

27. **Ectropis pais** sp.n.

♂, 31–32 mm. Group of *crepuscularia* Schiff. (1775). Face sharply two-coloured—upper half blackish, lower creamy white. Antennal ciliation very slightly over 1. Thorax and abdomen concolorous with wings. Legs with the usual dark markings; hindtibia not dilated.

Forewing with costa straight, except at base and near apex, termen moderately long (length of hindmargin), very gently curved, not excessively oblique; subcostal venation varying as in *dentilineata* Moore (1867)—in the type with the stalk of SC^{1-2} from the cell, in the paratype with it from that of SC^{3-5}; fovea ample, its distal wall almost perpendicular to SM^2; ground-colour dead white, scarcely so brownish even as second brood *bistortata* Goeze (1781), the drab irroration fairly dense in costal region, weaker posteriorly; lines weak, their costal spots (except perhaps the postmedian) more extended longitudinally than transversely; antemedian strongly oblique after its first outward curve, the shade proximal to it strong but irregular, somewhat macular, mixed with dark grey; median shade almost obsolete; postmedian and the narrow shade outside it with the dark teeth at R^3–M^1 little accentuated; subterminal and terminal markings normal.——*Hindwing* also rather weakly marked, but in both the examples with rather well-developed subterminal spots ; cell-mark elongate, in the type weak, in the paratype stronger.

Forewing beneath whitish, suffused except posteriorly with drab ; no markings except a slightly darker subterminal band (at least in anterior part of wing), in contrast to which an apical spot is almost white. Hindwing beneath whitish, unmarked.

Federated Malay States : Kedah Peak, 3,300 feet, 4 March 1928, at light (H. M. Pendlebury), type in coll. Brit. Mus., presented by the Federated Malay States Museums. Perak : Batang Padang, Jor Camp, 1,850 feet, 24 January 1925, at light (H. M. Pendlebury), paratype in coll. F.M.S. Mus.

Distinguished from *dentilineata* Moore, of which it may possibly prove a remarkable form, by its much smaller size, white ground-colour, strong subbasal band of forewing, etc.

28. **Ctimene spilognota** sp.n.

♂, 38 mm. Closely similar to *hieroglyphica* Walk., 1860 (= *vestigiata* Snell., 1881), possibly a subspecies.——*Forewing* with a large roundish black spot at base of cell and hindwards to near SM^2, supplanting the longitudinal streak of *hieroglyphica* ; postmedian black band differently formed, throwing out, at M^1, only the longitudinal band which—as in most *hieroglyphica*—connects it with the terminal band, the slender arm from cellule 3 to the proximal end of the black apical border entirely wanting, so that the orange subapical spot is single, not double.——*Hindwing* with the black median band reaching only from the subcostal. Streak to the radial fold, subsequently suggested at most by a dot at the hinder end of DC^3 ; postmedian band commencing at abdominal margin as in *hieroglyphica*, but curving strongly outward after crossing M^2, joining the terminal band on M^1 instead of running forward subparallel with it to beyond R^1.

Mindanao : Kolambugan, Lanao, plains (A. E. Wileman), 16 June 1914 (type and two others), 4 July 1914 (1 ♂). Type in Mus. Tring, paratype in Mus. Brit.

Warren's *concinna* (Nov. Zool. i, 412, " Philippines "), of which the type seems irrevocably lost, must, according to the very perfunctory description, have been one of the slenderly marked forms of *hieroglyphica*, such as are rather prevalent in N. Celebes. It is just possible, though quite improbable, that one such specimen merely labelled " Lorquin " (ex coll. Felder) may at one time have borne an erroneous label " Philippines " and been his type, having been assumed, in the absence of corroborative material from Celebes, to be a distinct but related species ; unfortunately a few of his earliest types did escape labelling and in some cases have only been rediscovered by careful study.

29. **Ctimene deceptrix** sp.n.

♂♀, 36–38 mm. Head and body black, the abdomen narrowly light orange-yellow beneath, marked with blackish at the extremities of the segments.

Forewing brown-black ; an orange-yellow dot or dash often present close to base, behind M ; an oblique, light orange-yellow band from midcosta (but leaving extreme costal edge black), variable in width from 2·5 to 4·5 mm., usually reaching termen at M^2–SM^2, but occasionally ceasing about 1 mm. before it, its edges variable in form (never quite straight), especially the distal, which is usually indented near the costa, often bulging somewhat in the middle, commonly tapering behind; 1 ♀ has two additional dots, one behind M towards middle of cell, the other at fold, behind base of M^2.——*Hindwing* entirely brown-black.

Underside similar, with some buff scaling at base of costa of hindwing.

Dutch New Guinea: Ditschi, Arfak Mountains, 1,200–1,500 m., May–June 1928 (Dr. E. Mayr), 9 ♂♂, 5 ♀♀ in coll. Tring Mus.

Superficially extremely like *Craspedosis flavidistata* Prout (1924), costa more rounded, band less smooth-edged, etc.

30. **Eubordeta meeki amyntica** subsp.n.

♀. Differs from *m. meeki* Rothsch. (1904) in that the upperside lacks the scarlet subapical mark of the forewing and subterminal band of the hindwing, the only red marking being the narrow costal streak of the hindwing, almost as in *albifascia* Joicey & Talb. (1915), which seems, according to the genitalia, to be a third race of the same species. From the latter, *m. amyntica* differs in that the white band of the forewing and the yellow markings beneath are scarcely any narrower than in *m. meeki*.

N.E. New Guinea: Edie Creek, west side of Herzog Mountains, 6,100 feet, early 1928 (A. F. Eichhorn), type in coll. Tring Mus.

In the unique type, the median band of the hindwing beneath is represented only by a small white dot between SC and the cell-vein and a stumpy yellow band behind M; but this marking varies a little in the other races.

31. **Craspedosis albigutta truncifascia** subsp.n.

♂♀. Differs from *C. a. albigutta* Warr. (1897, Dutch New Guinea) in having the band of the forewing much reduced. not or scarcely crossing R^1 anteriorly and fold posteriorly, its greatest width about 2·5 mm., more or less indented at the veins, especially distally—in 1 ♀ definitely intersected.

Vulcan I., November 1913–January 1914 (Meek's expedition), 4 ♂♂, 4 ♀♀ in coll. Tring Mus.

32. **Craspedosis semilugens tenuivirga** subsp.n.

♂♀. Differs from *C. s. semilugens* Warr. (1896, Dutch New Guinea) in having the band of the forewing only about half as broad, generally 2 mm. or slightly less at the widest part, in two ♀♀ widening to 3 mm. about R^3. The dark lines (including on both wings a straightish median, which is not mentioned in Warren's description but is well traceable on the forewing in fresh specimens of *s. semilugens*) rather more strongly expressed.

Dampier I., February and March 1914 (Meek's expedition), 4 ♂♂, 3 ♀♀ in coll. Tring Mus.

33. **Craspedosis aurianalis** sp.n.

♂, 39 mm. Head, thorax and first four segments of abdomen blackish; anal end orange, the genitalia long, with the hair more whitish beneath.

Forewing with termen long, curved, strongly oblique posteriorly, tornus rather weak; blackish, with a tinge of slate-grey; an oblique discocellular white patch scarcely beyond middle running from SC in the direction of tornus, but terminating between M^2 and fold, its form long-oval, or almost pointed behind, its greatest width (in middle) 2·5 mm.——*Hindwing* unicolorous slaty blackish.

Forewing beneath almost as above, but becoming paler posteriorly. Hindwing with a very ill-defined, approximately oval grey spot from radial fold just outside DC, across hinder angle of cell and bases of R^3 and M^1 about to submedian fold.

New Ireland, February 1924 (A. F. Eichhorn), 1 ♂ in coll. Tring Mus.

34. **Milionia eurosyne** sp.n.

♂, 48–52 mm. Eye hairy. Antennal ciliation short. Hindtibial pencil and abdominal spine strong. Head, body and legs black, shot with metallic green-blue about as in the allies (*aglaia* Rothsch. & Jord. 1905, *diva* Rothsch. 1904, etc.). Hindwing beneath with apical patch of specialised scaling 4 or 5 mm. in diameter.

Forewing elongate, almost as in *aglaia* but with termen slightly more curved and not quite so long; black, with faint purple gloss; a scarlet or orange band from costa to end of hindmargin, 4 or 5 mm. wide, its distal edge very slightly excurved; an extended scarlet-red subbasal patch (the base itself suffused with blackish), posteriorly confluent with the discal band, anteriorly nearly reaching SC, but more or less strongly irrorated with black in front of M, distally bordered by a broad, sometimes subtriangular black wedge which, arising from the end of the black costal base, tapers to a point on or before SM^2.——*Hindwing* black.

Underside with the discal band reproduced, always orange; the subbasal patch wanting; both wings shot with blue proximally about as in *aglaia* Rothsch. & Jordan and *arfaki* B.-Bak. (1910).

Dutch New Guinea: Ditschi, Arfak Mountains, 1,200–1,500 m., May–June 1928 (Dr. E. Mayr), 3 ♂♂ in coll. Tring Mus.

In the ♂♂ of the variable *aglaia* and *arfaki* the transverse band is always well within the cell, whereas in *eurosyne* ⅓ or ¼ is beyond it; moreover they never, so far as is known, lose the red band of the hindwing, though it may be considerably abbreviated. Typical *arfaki* was taken with *eurosyne*.

35. **Automolodes goldiei imparifascia** subsp.n.

♂. Bands of a more reddish orange than in *g. goldiei* Druce (1882)—flame-scarlet to grenadine-red—that of the forewing narrowed (4 mm. or less in width), that of the hindwing broadened (5 mm. or more) and lengthened, its tapered point well behind M^2, sometimes quite near abdominal margin.

N.E. New Guinea: Watut River to Buiang, west side of Herzog Mountains, 3,200–5,400 feet, early 1928 (A. F. Eichhorn), 10 ♂♂ in coll. Tring Mus.

B. AFRICAN.

Subfam. GEOMETRINAE.

1. **Aphilopota semidentata** sp.n.

♂, 35–40 mm. Face black-mixed, with pale lateral spots below. Palpus predominantly blackish. Head and body concolorous with wings, the thorax above darkened posteriorly. Legs weakly spotted, the foreleg largely darkened on the innerside.

Forewing with apex rather acute, termen at first almost or quite at right angles with costa, waved, curving strongly to become strongly oblique; pinkish buff, or slightly yellower, strongly clouded, excepting an anterior streak (about 2–3 mm. in width but variable and not sharply defined), with dark greyish brown (in some individuals warmer brown, in any case with traces of the brown coloration, especially a spot between postmedian and subterminal in cellule 6) ; costal edge strongly dark-dotted ; cell-spot round, about 1 mm. in diameter, not or most minutely pale-pupilled ; lines blackish, highly oblique, approximated except anteriorly ; antemedian on the pale area very oblique outward toward cell-spot, interrupted, sometimes almost obsolete, from cell-fold hindward fine, generally strong, wavy, direct to hindmargin about 3 mm. from base ; postmedian punctiform on the pale area, from costa within 4 mm. of apex, becoming slightly more oblique and more continuous from R^1, gently incurved between M^2 and SM^2, reaching hindmargin about middle ; in some specimens the pale ground-colour is more or less persistent between the lines, in which case a median line is visible or even strong ; subterminal fine, dentate, interrupted, at least with a strong, enlarged tooth between R^3 and M^1, its passage across the pale area indicated by dark spots proximally ; terminal line lunular, the lunules enclosing at extreme termen minute pale dashes ; fringe dark, except at extreme base and tips.——*Hindwing* with costa longish, termen strongly crenulate in its anterior part, weakly in its posterior, the tooth at R^3 slightly the most pronounced ; concolorous with forewing, but the dark greyish brown limited to a terminal band and strong proximal irroration, sometimes terminating in a median shade near the cell-spot ; cell-spot variable, punctiform or fairly large, occasionally ocellated ; a waved or subcrenulate postmedian line much less curved than termen ; a slender brown shade close beyond it.

Underside paler ; cell-spots black, on both wings large ; a punctiform line little beyond it ; proximal area as far as the line densely irrorated ; forewing with a presubterminal costal spot ; terminal line punctiform ; fringe less dark than above, pale in proximal half, more brown in distal.

Madagascar : Diego Suarez, January–August 1917 (G. Melou), about 20 ♂♂ in coll. Tring Mus.

Except in the more crenulate hindwing, this seems to agree well with *Aphilopota* Warr. (1899) = *Haggardia* Warr. (1904).

2. **Aphilopota perscotia** sp.n.

Gnophus perscotia Hmpsn., MS., in coll. C. S. Barrett.

♂, 43 mm. Head and body concolorous with wings.

Forewing with apex moderate, termen scarcely oblique anteriorly, strongly curved behind R^3 ; venation probably normal in most specimens (i.e. SC^{1-2} coincident, free) but the type is a remarkable sport (fortunately quite asymmetrical, so that F. Bryk can scarcely propose a new family for it) : right wing with subcostals normal, R^1 obsolete beyond its middle, reappearing as a curved spur out of R^2 near termen, R^2 at this point also forked ; left wing with an anterior branch from R^1 before its middle and running into SC^5, SC^3 apparently wanting, having probably in reality migrated, as the first subcostal is branched before its middle, one branch (probably SC^1–SC^2) short, the other (probably SC^3) long and reaching costa close to apex ; brown, somewhere between buffy brown and sayal brown of Ridgway, the veins inclining to the latter colour, a grey irroration darkening the rest of the wing ; markings blackish ; cell-spot moderate, oval, scarcely ocellated ; faint suggestions of a subbasal line ; antemedian rather nearer to cell-spot than to base, rather thick, slightly bent outward in cell, inward behind M and forming a very gentle outward curve between this bend and hindmargin ; postmedian lunulate-dentate, arising at 4 mm. from apex, between the two folds forming a gentle inward curve, at hindmargin slightly nearer to tornus than to antemedian ; subterminal suggested by faint distal shading behind M^2 only ; terminal line very fine and weak.——*Hindwing* with termen faintly sinuous, appearing very slightly prominent (but not toothed) between R^3 and M^2 ; concolorous with forewing, but lighter costally, at least between the separation of C and SC and the postmedian line ; cell-mark as on forewing or slightly shorter ; a postmedian arising rather farther from apex than on forewing, otherwise similar ; termen as on forewing.

Underside slightly paler ; cell-spots and postmedian present.

Transkei, Cape Colony (Miss F. Barrett), 1 ♂ in coll. Tring Mus.

The wing-shape and the lunulate-dentate postmedian line are distinctive.

3. **Racotis apodosima** sp.n.

♂♀, 43–51 mm. Head mostly pale, face with a dark transverse central bar, palpus with some dark admixture on 2nd joint ; palpus $1\frac{3}{4}$. Antenna of ♂ pectinate from the 2nd to the 36th joint with moderate, tapering branches ; of ♀ subdentate, with tufts of cilia as long as diameter of shaft. Thorax and abdomen concolorous with wings, the abdomen above with dark bands or subconfluent paired spots. Forefemur not tufted ; foretibia and tarsus darkened, with pale tips to the joints ; hindtibia of ♂ not dilated.

Forewing not extremely broad, apex moderate, termen waved, gently curved, moderately oblique ; cell less short than in typical *Racotis* (appreciably over $\frac{2}{5}$) ; SC^{1-2} shortly stalked ; fovea in ♂ strong, double before and behind fold, which is here represented by a strong curved ridge on upperside ; in ♀ also present, though weaker ; yellow-brown (perhaps cream-buff or chamois), with moderately copious brown and blackish irroration ; cell-spot moderate, vaguely ocellated ; lines not well defined except on the veins, but arising from distinct (though not large) blackish costal spots ; a subbasal suggested by dots at costa and proximal edge of fovea ; antemedian marked by dots on M and SM^2, in a line with the costal spot, and faint indications of an outbent line in the cell ; median excurved outside the cell, posteriorly almost in alignment with cell-spot, the vein-marks dentiform ; postmedian mostly punctiform or subdentiform, posteriorly curving so as to end quite near the median, between SC^5 and R^1 with a deep lunule inward, on additional dot at proximal end of lunule ; ill-defined paired interneural spots proximal and distal to the dot on R^3 ; subterminal in places fairly distinct, macular or lunular, with a pair of dark spots proximally between costa and SC^5, a stronger pair between the radials (this latter pair with shadowy distal extensions to the termen) and less definite shading between M^2 and hindmargin ; terminal dots black, strong ; fringe weakly spotted.——*Hindwing* with termen rounded, well crenulate ; cell-dot punctiform ; median and postmedian lines distinct, lunulate-dentate, the median well proximal to cell-dote, with a rather strong tooth outward on base of M^2, the postmedian curved, approximately 6 mm. from termen; distal area much as on forewing, the posterior shade proximal to the subterminal rather well developed.

Underside with the cell-spots strong, that of the forewing not ocellated ; the lines indicated ; forewing more or less suffused as far as the median shade ; both wings with a dark, generally broad subterminal band, on the forewing almost reaching the termen at tornus and throwing out a projection to the termen between the radials, on the hindwing less sharply defined distally and with vague distal extensions between R¹ and costa.

Delagoa Bay (Mrs. Monteiro), type ♂ in coll. L. B. Prout, paratype ♂ in coll. Joicey, allotype ♀ in Mus. Tring. Morogoro : Kibuku, 1 ♀ in Mus. Tring. Durban and district, 3 ♂♂, Transkei, 2 ♀♀, at Tring misidentified as *squalida* Butl. (1878), in Mus. Brit. as *Cleora extremaria* (Walk., 1860) = *haplocnema* Prout (1922), Kloof, November 1929 (Manley), a ♀ in coll. Transvaal Mus., perhaps a seasonal form, with a rather more olivaceous tone and the dark bands of the underside much reduced and broken, recalling some examples of *R. boarmiaria* (Guen.) *f. obliterata* Warr. (1894). Madagascar : Diego Suarez, a race (?) with the dark borders beneath very broad, 1 ♂ in coll. Tring Mus.

I have described this species very fully because there are so many similar species as yet imperfectly known. I suspect it is a race of *R. diffusa* (Walk., *Proc. Glasg. Nat. Hist. Soc.* i, 374) (Congo), larger and less ochreous, more strongly marked. It seems to agree perfectly in structure with the unique type (♀) of the latter, unless the antennal cilia be slightly less long, but it would have been futile to describe it by comparison with that, as it would have conveyed no intelligible information ; Swinhoe's synonymy of *diffusa* (*Trans. Ent. Soc. Lond.* 1904, p. 533) is quite incorrect.

R. apodosima is transitional between true *Racotis* and some really unplaced species—such as *extremaria* Walk.—which are still allowed to stand in *Cleora* (sens. latiss.) ; possibly on revision *Racotis* may be given a wider scope, but hitherto I have been inclined to rely chiefly on the short cell of the forewing—$\frac{2}{5}$ or less—and a combination of minor characters.

4. **Epigynopteryx flexa** sp.n.

♂, 45 mm. Head cinnamon-buff, the upper half of face and a narrow band on occiput fuscous ; palpus much mixed with fuscous. Antennal pectinations moderate (about 4). Body less cinnamon, being strongly mixed with rather pale vinaceous drab. Foreleg darkened above.

Forewing with costa slightly arched at base and in distal half, apex not acute, termen straightish (scarcely appreciably concave) to R³, there bluntly angled, thence oblique and very faintly concave, tornus moderate ; the very long stalk of SC^{1-2} arising nearly 2 mm. down that of SC^{3-5}, anastomosing at a joint, or connected by a very short bar, with C ; pale cinnamon-buff, very much clouded with pinkish or vinaceous cinnamon and with short greyish strigulae ; costal edge proximally fuscous, then more dotted ; a small blackish cell-dot ; antemedian line sinuous, almost obsolete anteriorly, in posterior half marked by a rather broad cloud of grey shading ; postmedian fine and grey (its course made very clear by the markings which accompany it distally), commencing at a white costal spot 4 or 5 mm. from apex, which gives birth to a curved whitish line, enclosing a light olive-grey apical-costal blotch which reaches R¹ ; minute white dashes on SC⁵ and R¹ at 3 mm. from termen ; from R¹ the postmedian makes an inward curve to R², a faint bend outward about R³, thence a longer curve, reaching hindmargin 3 or 3·5 mm. from tornus ; a second olive-grey patch outside it at the radials, about as wide as the succeeding terminal area of the ground-colour; finally a very large, predominantly much blacker grey (dark quaker-drab) tornal blotch reaching the preceding patch and the termen.——*Hindwing* with the angle at R^3 moderate; concolorous with forewing; cell-dot very minute; antemedian without definite cloud; postmedian more than twice as near to cell-dot as to termen, excurved between radial fold and M^1, incurved at fold, oblique outward to hindmargin; only the tornal blotch developed, and this more restricted and indefinite than on forewing.

Underside similar, rather paler, and slightly weaker-marked.

Cameroons: Bitje, Ja River, 1915 (G. L. Bates), type in coll. Joicey. Uganda: Kampala, Katamba, 27 June 1929, a rather smaller, rather worn, but otherwise closely similar ♂ in coll. Brit. Mus., received through the Imperial Institute of Entomology.

Very near *maculosata* Warr. (1901, Congo) but larger, differently coloured, forewing bent at R^3, postmedian rather different, etc.

5. **Sesquialtera lonchota** sp.n.

♀, 29–32 mm. Close to the genotype (*ridicula* Prout, 1916) in structure and coloration.——*Forewing* with the postmedian line less excurved, more approximated to cell-mark, on underside often rather thick.——*Hindwing* with the tooth at SC^2 conspicuously longer; proximal part of the wing above and beneath whitish, a broad blackish-fuscous distal border, at SC^2 about 3 mm. wide, its proximal edge (the postmedian line) then curving inward so as closely to approach the cell-dot, then slightly excurved, but accompanied proximally on the upperside by a brown suffusion.

Abyssinia: Diredaua, N.W. of Harar, 1914 (G. Kristensen), 7 ♀♀ in coll. Tring Mus.

6. **Rhodophthitus thapsinus** sp.n.

♂♀, 38–46 mm. Very similar to *roseovittata* Butl. (*Proc. Zool. Soc. Lond.* 1895, p. 741, pl. xliii, f. 3), with which it has hitherto been confounded. Wings less glossy.——*Forewing* more definitely tinged with buff, the rosy longitudinal streaks variable in development, generally broad, the dots coarser, generally very copious.——*Hindwing* pale orange-yellow, the dots at least in part large, variable in number and distribution.——Underside similarly much more yellow than in *roseovittata*, the forewing posteriorly more yellow than on upperside.

Angola (Pemberton): Bihé, 11 ♂♂, 1 ♀, including the type ♂; N. Bailundu, 3 ♂♂, 1 ♀. All in coll. Tring Mus.

A few specimens from Uganda (including Butler's assumed ♂ of *roseovittata*, p. 742, fig. 2) are known to me, but not enough to indicate whether they are racially separable.

7. **Narthecusa tenuiorata perspersa** subsp.n.

♂♀, 44–48 mm. Postmedian row of spots more proximally placed, notably on the forewing, where, moreover, it is generally less curved than in *t. tenuiorata* Walk. (1862); apical and terminal black patches more or less completely dissolved into small black spots and irroration; this irroration also developed, though more sparingly, on other parts of the wings, at least on the anterior part of the forewing.

Nigeria (Dr. Ansorge): Degama, 2 ♂♂, 1 ♀; Ogruga, 2 ♂♂. All in coll. Tring Mus., the type ♂ from Degama.

The genus *Narthecusa* Walk. (cf. Prout, Nov. Zool. xxxiii, 181), notwithstanding the individual variability, is exceedingly prone to geographical variation. It is highly probable that *zerenaria* Mab. (1878), *melanthiata* Mab. (1891) and *nudalla* B.-Bak. (1913) are all races of the present species.

Negloides gen.n.

Face smooth. Palpus extremely short and slender. Tongue short and slender. Antenna in ♂ pectinate almost to apex, the branches extremely long (♀ unknown). Hindtibia in ♂ not dilated, all spurs fully developed.——*Forewing* shaped as in *Narthecusa*, venation the same; fovea undeveloped.——*Hindwing* subquadrate, apex rather prominent, rounded, termen slightly sinuous to R^3, here toothed or minutely tailed, thence straightish to the well-defined tornus; venation as in *Narthecusa*.

In spite of its very different aspect, scarcely different from *Narthecusa* (= *Negla*) except in the atrophied fovea and the quite differently shaped hindwing.

Type of the genus: *Negloides oceanitis* sp.n.

8. **Negloides oceanitis** sp.n.

♂, 30–33 mm. Head and body orange-buff, the face fuscous except the lower part; pectinations blackish.

Forewing orange yellow, not quite so clear as deep chrome, with a weak or moderate violet-grey clouding close to apex; a very faint or moderate, somewhat sinuous row of postmedian dots on the veins; sometimes no other markings, often an irregular row of subterminal spots, or at least the anterior part thereof, the one between R^1 and R^2 largest; occasionally also a median line, arising from an outwardly oblique costal streak, strongly angled (but almost or quite interrupted) between the radials, slightly sinuous posteriorly.——*Hindwing* concolorous, without subapical clouding, otherwise similar to forewing.

Underside similarly but more strongly marked.

Madagascar: Diego Suarez (G. Melou), 17 ♂♂ in coll. Tring Mus.

C. NEOTROPICAL.

Subfam. **HEMITHEINAE.**

1. **Phrudocentra tanystys** sp.n.

♂, 39 mm. Similar to *flaccida* Warr. (1909), of which I first supposed it to be a race. Antenna with about 30 joints pectinated before they become merely dentate (in *flaccida* not more than 25 joints). Abdomen with the white dorsal ornamentation strong.

Forewing with the proximal shadings vinaceous-grey in varying depth, costally and along the edge of the antemedian line almost white; the vinaceous grey reaches the antemedian anteriorly, is mixed with brown posteriorly and leaves (except at extreme base) a green patch behind the fold; antemedian sharply angled, oblique inward to middle of cell, outward to base of M^2, inward to fold, excurved between this and hindmargin, from costa to fold blackish, then brown ; otherwise nearly as in *flaccida*.——*Hindwing* with termen well rounded, even fuller than in the ♀ of *flaccida*.

Brazil : Joinville, July–October (ex coll. Arp), type in coll. Deutsch. Ent. Inst.

These two aberrant species seem best referred to *Phrudocentra*, although the ♀ frenulum is not altogether wanting. Antenna in the ♂ with the pectinations 2 or less ; in the ♀ proximally (for a short distance only) lamellate with clawed teeth ; proximal spurs of hindtibia present, though short ; hindwing not at all bent at R^3, M^1 connate to quite moderately stalked, the latter the case in *tanystys*.

Subfam. **STERRHINAE.**

2. **Semaeopus indignaria** (Guen.).

Cnemodes indignaria Guen., *Spec. Gén. Lép.* x, 6 (1858) ; Oberth., *Ét. Lép. Comp.* xx, t. xlix, f. 4645 (1923) (" Brésil ? ").
Drepanodes absconditaria Walk., *List Lep. Ins.* xxvi, 1488 (1862) (St. Domingo).

The attempt to find a Brazilian species entitled to the name of *indignaria* Guen. has always been an unsuccessful one. I judge from the labelling in the Tring Museum that Warren's note on the potential validity of *Cnemodes* (Nov. Zool. ii, 91) was founded on a Tijuco ♂ of *Semaeopus ciliata* Prout (1918). What Warren made of 5 Novo Friborgo ♂♂ of the closely similar species with pectinate ♂ antenna (*vide infra*), which I believe must have been also in the collection at the time, is not manifest, as they bear no hand-written labels ; I can only conjecture that he did not notice the antennal difference and took all the six to be one species. Subsequently, in any case, he treated the pectinate species (a good series from Sapucay, Paraguay) as *indignaria*. But the appearance of Oberthür's figure, confirmed by the arrival of Guenée's type in this country, shows that it is not a Brazilian species at all but comes—like its neighbour *C. castaria* Guen. and many others of Guenée's Geometridae—from Haiti and supplants *Semaeopus absconditaria* (Walk.) ; this, indeed, I surmised from his description (see *Ann. Mag. Nat. Hist.* (9) i, 20), but did not venture to adopt. The Jamaican form of the same will, if more adequate material shows it racially separable, stand as *indignaria filiferata* Walk. (1862).

Well different from the following in its longer pectinations, browner tone, much less sinuous postmedian and smaller cell-spots.

3. **Semaeopus enodiflexa** sp.n.

"*Semaeopus indignaria* Guen." Prout, *Ann. Mag. Nat. Hist.* (9) i, 20 (1918) (err. det.).

♂, 35–38 mm.

This species, mentioned in the preceding note, has been almost sufficiently characterized by me in erecting *S. ciliata*, as it is almost exactly like that species except in the antenna. Antennal pectinations fully 2 on the outer series, slightly less than 2 on the inner, well ciliated at the tips. Wings very light brown, about as in *viridiplaga* Walk. (1861) ; cell-spots consisting of conspicuous, fairly large, brown-ringed white dots, which are generally oval rather than round ; sinuses of the postmedian not quite as deep as in *viridiplaga* and quite without the subordinate teeth.

Paraguay : Sapucay ; Brazil : Province of Rio Janeiro, ♂♂ not uncommon, ♀ rare. Type ♂ from Sapucay, 12 November 1904 (W. Foster) in coll. Tring

Mus. 2 ♀♀ from Tucuman, in coll. Joicey, may belong either to *enodiflexa* or to *ciliata*.

4. **Semaeopus mira** sp.n.

♂, 33 mm. Head buffy brown, slightly olivaceous ; palpus beneath rather paler and more buff. Antenna subdentate-fasciculate. Abdomen beneath rough-scaled. Hindleg with a strong reddish tuft from femoro-tibial joint ; tibia and first tarsal joint roughly clothed, exposed extremity of tarsus very short and pointed.

Forewing moderately broad, termen smooth, gently curved ; English red (yellow densely irrorated with bright red) ; costal margin, as far as C, dark grey with a tinge of olive ; posterior half of wing between ante- and postmedian lines suffused with grey ; antemedian almost straight, red, about 4 mm. from base ; cell-spot long-oval, grey, tinged with olive ; median line beyond it, dark grey, almost perpendicular from costa to R^3, thence thickened and forming a slight curve inward ; postmedian defined in anterior half by two very fine, shallow, bright yellow lunules, which meet in a rather acute outward angle on R^1 ; in posterior half by short detached lunules, about 2 mm. from termen between R^3 and M^2, much more proximal at fold ; subterminal thick, dark grey, at SC^4 about 3 mm. from termen, at R^3 bending outward to termen, resumed more proximally at M^2 (at the postmedian) and running to tornus ; terminal area with grey vein-streaks ; terminal line yellow, very fine and much interrupted, chiefly indicated at the veins ; fringe chequered with dark grey.——*Hindwing* with termen waved, especially in anterior half ; cell-fold strong, almost vein-like, SC^2 minutely stalked, R^2 very weak, appearing as an anterior branch to the radial fold (will probably prove normally developed in the ♀) ; concolorous with forewing, the smoky clouding more extended, distal rather than posterior, forming a broad band just proximal to the postmedian, also diffusing the subterminal ; two blackish cell-dots (as in *duplicata* Warr., 1905, etc.), set on a discoloured greyish patch ; postmedian composed of isolated lunules throughout.

Underside paler cacao-brown dulled with olive-grey, especially in distal area ; hindmarginal part of forewing whitish ; cell-marks, median line and lunulate-dentate postmedian strong, subterminal weak ; costa of forewing and termen nearly as above.

E. Peru : Huancabamba, Cerro de Pasco (E. Böttger), type in coll. Tring Mus.

Distinguished at once from the rest of the group by the bright red colouring, as well as by the structure.

SUBFAM. **LARENTIINAE.**

5. **Spargania subtilisecta** sp.n.

♂, 41–42 mm. Closely similar to *subignea* Dogn. (1904). Palpus scarcely noticeably longer, on outerside redder, with a blackish longitudinal streak.——*Forewing* with the dark maculation between basal patch and median band broader; subterminal line more slender, with less long tooth inward on SC^5 ; apical dash more slender, less steep, meeting the subterminal in cellule 6, not in cellule 5.——*Hindwing* particoloured, the anterior half (approximately) of a slightly deeper reddish, the posterior almost entirely clouded with a dark smoky shade.

E. Peru : Huancabamba, Cerro de Pasco, 6,000–10,000 feet (E. Böttger), 2 ♂♂ in coll. Tring Mus.

6. **Eudule secticolor** sp.n.

♂♀, 24 and 27 mm. Head and body blackish, in places with a bluish sheen. *Forewing* in ♂ with the apical region contorted and the costal margin forming a rounded projection at the third quarter; in ♀ well rounded; venation in ♀ normal, with SC^5 (as in some other *Eudule*) arising from the large areole, in ♂ contorted, SC from the beginning of the areole markedly retroflex, DC$^{2-3}$ in consequence extremely short, R^1 and R^2 curving so as to meet at about 2 mm. from termen, thence coincident, R^3 recurved, the subcostals, excepting SC$^{3-4}$, arising from the areole more or less widely separate, SC^4 shortly stalked, sinuous; orange, with reflections of flame-scarlet; costal and hind margins narrowly black; a blackish apical patch (less deep close to apex) extending about 5 mm. along costa, reaching about to M^1, connected by a very narrow terminal band with a small tornal patch, from which runs along the fold and behind the base of M to base of wing a thick, slightly curved black line; ♂ near the apex with a tuft of curved hair, partly blue-black, partly brownish, arising in front of SC^4 and directed upward, outward and backward.——*Hindwing* with DC in the ♂ biangulate, in the ♀ sinuous; black.

Underside similar, in the ♂ without the hair-tuft, and with smoky suffusion behind the longitudinal line of forewing.

Brazil: Alto de Serra, Sao Paulo, March 1928 (type ♂) and December 1928 (allotype ♀), both in the Tring Museum received from R. Spitz.

Subfam. **GEOMETRINAE.**

7. **Pherotesia abjecta** sp.n.

♂, 54–55 mm. At first sight much like a broader-winged, blacker-marked *liciata* Dogn. (1911), abdomen without the dorsal spots. In structure close to the much smaller *subjecta* Warr. (1905),[1] the pectinations being less short than in *liciata*, the lateral tuft of abdomen present (light ochreous brown), R^2 of the hindwing well separate from R^3, DC of forewing as well as (though less extremely than) that of hindwing biangulate.——*Forewing* with cell-spot large and with a strong costal half-band close to base (as in *subjecta*), in addition with a rather large blackish subbasal spot between M and SM^2; proximal subterminal spots strong, the one on each side of SC^5 considerably extended, the one at fold fully as large as in *subjecta*.——*Hindwing* above and beneath with the dark borders still less developed than in *subjecta*.

S.E. Peru: Oconeque, Carabaya, 7,000 feet, July 1904, dry season (G. Ockenden), both worn, but easily recognizable. Type in coll. Tring Mus.

8. **Bryoptera fulvisquamosa** sp.n.

♂, 28–29 mm. Head and body pale, with some irroration; palpus marked with black on outerside. Hindtibia not dilated. Wings shaped as in the group of *basisignata* Warr. (1904).

Forewing white, clouded with light brown, about as in *deformipennis* Warr. (1907); markings similar; antemedian rather heavier than in average *deformipennis*; cell-spot similarly rounded and light-coloured; median chiefly expressed by crescentic marks at costa, at radials, and between M^2 and fold, the latter two heavy, near the postmedian.——*Hindwing* with nearly the colour and markings of *deformipennis*, the patch behind cell-dot rather heavier, the postmedian, in sympathy with the normally shaped termen, slightly more curved anteriorly.

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[1] Dognin (*Hét. Nouv.* ix, 29) says that this sinks to *gariota* Dogn. (*Ann. Soc. Ent. Belg.* xxxix, 114), but the description of the latter fits so badly that I do not venture to merge the two. Perhaps *subjecta* was misidentified in Dognin's collection.

Forewing beneath nearly as in strongly marked *deformipennis*, the ill-defined dusky terminal band strongest in anterior half. Hindwing beneath pale at all margins, a very extensive central part covered with yellow-ochre androconial scaling.

S.E. Peru : La Oroya, Rio Inambari, 3,100 feet, January 1906 (type) and September 1904 (paratype), both in Mus. Tring, collected by G. Ockenden ; Uruhuasi, a fine ♂ in Mus. Brit.

9. **Odysia laetipicta** sp.n.

♂♀, 31–36 mm. Face dark brown, narrowly whitish below. Palpus whitish, rather strongly dark-mixed on outerside. Antenna rather short, the pectinations in the ♂ about 5, in the ♀ 4, their terminal bristles scarcely differentiable, their cilia developed on the anterior side only. Vertex and thorax white, with little brown admixture ; abdomen above more brown-mixed, anteriorly with indications of paired dark spots ; the ♀ abdomen robust. Hindtibia of ♂ strongly dilated, with hair-pencil ; the tarsus short and rather stout, in the ♂ less than $\frac{1}{2}$ tibia and even in the ♀ considerably shorter than the tibia.

Forewing in ♂ moderate, in ♀ rather broad (strongly recalling the group of "*Nesalcis*" *laeca* Schaus), termen curved, oblique, scarcely waved ; fovea well developed in the ♂ ; white, with faint smoky irroration and a few darker specks ; some slight orange subbasal spots ; lines, and to some extent their accompanying shades, arising from dark costal spots ; antemedian at $\frac{2}{7}$, less curved than in *N. laeca*, strongest on veins, the accompanying proximal shade or line parallel, receding slightly at costa, strongly marked with orange, especially at the veins ; median, except, its broad costal spots, weak, excurved outside the small cell-dot, more or less marked with orange on the veins, notably on base of R^3 ; postmedian from costa to the slight incurvature at fold forming a fairly regular outward curve, slender, but marked with strong vein-spots ; its accompanying distal shade slender, weak, but marked with strong orange dashes on the veins, sometimes with a dark spot on fold ; subterminal crenate, marked proximally by more or less continuous brown-grey shading, which strengthens costally and between the radials ; orange vein-dashes close to termen, between the radials accompanied by some dark shading ; termen with blackish interneural dots ; fringe white, with dark spots opposite the veins.——*Hindwing* with termen rounded, weakly (behind M^1 not) waved ; antemedian line shown by a dark mark close to base ; cell-dot obsolete or slight ; median marked by orange vein-spots, the one on DC^1 and base of R^1 elongate ; postmedian and the markings beyond nearly as on forewing.

Underside white, in the ♀ more irrorated than above ; costal spots present, but reduced ; cell-dots as above ; no orange spots ; postmedian, with its vein-dots, distinct ; a subterminal grey-brown shade, in the ♀ pretty complete, especially on the forewing, in the ♂ only well developed between the costa and R^3 of the forewing, in any case leaving free, in both sexes, white spots at apex, midtermen and behind M^2.

Venezuela: Las Quiguas, Esteban Valley, type ♂ in coll. L. B. Prout; San Esteban, June 1909 (S. M. Klages) paratype ♂ (rather worn) in coll. Tring Mus.; Ciudad Bolivar (S. M. Klages), 2 ♀♀ in coll. Tring Mus.

Apparently near "*Nesalcis*" *haematosticta* Dyar (1925), which I have not seen. The whole of that group (*croesaria* Schaus, 1901; *regularis* Dogn. 1902; *laeca* Schaus, 1912; *nebetta* Dyar, 1916) differs widely from typical *Nesalcis* (subgenus of *Melanolophia*, with pectinate ♀) in facies and venation, but lacks the fovea of the present species.

10. **Fulgurodes ypiranga** sp.n.

♀, 78 mm. Similar to *F. lilianae* Schaus (*Proc. Ent. Soc. Wash.* xxxi, 50). Still larger. Abdomen with the pale parts more buff, more restricted, the black dorsal lines thickening triangularly behind, merging in a broad black lateral stripe which contains a row of cream-buff spots.——*Forewing* with cell longer (nearly $\frac{3}{5}$), the white with a creamy tinge and in places dulled with greyish; the black lines thicker; antemedian more oblique to a sharp angle at forking of M with M^2; cell-mark narrowed; subterminal more distally placed, joined to the terminal by black veins, the two forming a narrow black marginal band on which stands a series of subterminal lunules of varying depth, very different from the broad zigzag white line of *lilianae*.——*Hindwing* with the cell elongate ($\frac{3}{5}$); veins heavily blackened and accompanied by much dark irroration, so that only a longitudinal streak in cell, a much narrower one close to abdominal margin, and some outer spots (particularly a series between the postmedian and the marginal band) remain whitish; a thick linear black mark on DC; postmedian line just beyond it, thick, curved, but not appreciably dentate; subterminal lunules obsolete.——Underside similar, but with the black still more extended.

Brazil: Ypiranga, Sao Paulo, March 1923 (R. Spitz), 1 ♀ in coll. Tring Mus.

11. **Phyllodonta cataphracta** sp.n.

♂, 38–41 mm.; ♀, 42 mm. In structure, shape and markings very similar to *matalia* Druce (1891). Distinguishable at a glance by its colour and on closer attention by several details of the markings.

Coloration above and beneath much darker and warmer than in *matalia*, in the ♀ clay-colour to tawny olive, suffused on the upperside with ochraceous tawny or tawny, in the lightest parts of the ♂ more definitely tawny olive, suffused beneath with a browner shade and above almost throughout with hazel, in part inclining to chestnut, rarely with much trace of the pale vinaceous-drab suffusions of *matalia*. Markings correspondingly darker than in *matalia*, otherwise on the upper side of the ♂ with little to distinguish them, except that the postmedian of the hindwing is more proximal and less deeply dentate. ♀ above with the subterminal line of the forewing ending closer to the tornus than in *matalia*, that of the hindwing more curved and considerably nearer the termen than in that species; a blackish spot between R^3 and M^1 of forewing close to termen, as in the ♂♂ of both species. Underside in both sexes characterized by the stronger and better-defined white apical patch of forewing and by having the strongest line (median on forewing, antemedian on hindwing) less curved and more proximally placed, on the forewing crossing or proximal to the cell-dot, on the hindwing well proximal to it.

E. Peru: Huancabamba, Cerro de Pasco, fairly common (including the type ♂ in coll. Tring Mus.) ; Oxapampa. S.E. Peru : La Oroya and Santo Domingo, Carabaya. Rio Madeira : Calama, 1 ♂.

To judge from the Tring labellings, this species has been misidentified as *matalia* and the true *matalia* has been called *furcata* Warr. (1894). The latter determination is approximately correct, although I suppose *furcata* Warr. (Rio Janeiro, not " without locality ") will prove a separable race ; it may be added that Warren's assumed paratype of *furcata* (from Corcovado [Rio]) is really the ♀ to *informis* Warr. (1894).

12. **Rhomboptila cajanuma irrufata** subsp.n.

♂♀. On an average somewhat smaller than *c. cajanuma* Dogn. (1892) from Ecuador and Peru ; the vinaceous-buff ground-colour changed to pale purple-drab ; hindwing beneath with the dark border heavier, both the lines and the border much less red (more Rood's brown to Vandyke brown), the postmedian generally less deeply sinuate.

British and French Guiana, the type ♂ from St. Jean de Maroni, in coll. Tring Mus.

13. **Rhomboptila calamensis** sp.n.

♂, 34–37 mm. Closely similar to *cajanuma* Dogn., except that the forewing, instead of the large lobe at R^3 (pointing outward and hindward, as in a *Phyllodonta*), has only a very small tooth directed outward (scarcely, if at all, larger than that of *tipaldii* Th.-Mieg, 1893 = *delicata* Warr, 1894). Smaller ; ground-colour on an average slightly paler ; antemedian band and distal cloudings of forewing more blue-grey than green. Hindwing with median line crossing the cell-dot, or hardly proximal thereto. Underside very distinct from that of *cajanuma*, especially on the hindwing, lacking the red admixture ; both wings more nearly as above, but with the blue-grey distal markings intensified, the clouding of forewing extended over a great part of the costal region.

Calama, Rio Madeira, below Rio Machados, August–October 1907 (W. Hoffmanns), 16 ♂♂, including the type ; Allianca, Rio Madeira, 1 ♂ ; La Union, Rio Huacamayo, S.E. Peru, 1 ♂ ; Buenavista, E. Bolivia, 2 ♂♂ ; all in coll. Tring Mus.

The ♂ of the species which Warren chose for the type of his genus *Rhomboptila* (1894), namely *brantsiata* Snell. (1874), differs in venation from nearly all the others which I have examined, SC^2 of the forewing arising from the cell, connected with SC^1, whereas the rest follow the much commoner venation of the Neotropical genera of the group, SC^{1-2} long-stalked, their stalk connected by a bar with C ; only the ♂ of *siccifolia* Warr. (1894) agrees with that of *brantsiata* in this particular.

14. **Erosina hyberniata fulvescens** subsp.n.

Erosina fulvescens Warr., MS. in coll. Tring Mus.

Larger and more ochreous than name-typical *E. hyberniata* Guen. (1858) ; the ♂♂ at least as large, and almost as well coloured as the ordinary ♀♀, whether from the type locality (Novo Friborgo, Brazil) or from Central America ; the ♀♀ generally 54–58 mm., with the forewing and terminal part of hindwing above bright ochraceous buff, the underside correspondingly brightened.

Jamaica, fairly common, the type ♂ from Newcastle, September 1893, in coll. Tring Mus.